



<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/772,424
	Filing Date	02/06/2004
	First Named Inventor	John V. Frangioni
	Art Unit	3736
	Examiner Name	
Total Number of Pages in this Submission	Attorney Docket Number	14952.0320

ENCLOSURES (check all that apply)				
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application)  <input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC  <input type="checkbox"/> Appeal Communication to Board of Appeals and interferences  <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">PTO-1449  Copies of foreign patent references and articles listed on PTO-1449</div>		
<table border="1" style="width: 100%;"><tr><td style="width: 20%;">Remarks</td><td></td></tr></table>			Remarks	
Remarks				

SIGNATURE OF APPLICANT, ATTORNEY OR AGENT			
Firm Name	STEPTOE & JOHNSON LLP		
Signature			
Printed Name	Harold H. Fox		
Date	10-21-04	Reg. No.	41,498

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : John V. Frangioni et al.                      Art Unit : 3736  
Appl. No. : 10/772,424                                      Examiner : Unknown  
Filed : February 6, 2004  
Title : MATERIALS AND METHODS FOR NEAR-INFRARED AND INFRARED  
              INTRAVASCULAR IMAGING

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INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. This statement is being filed before the receipt of a first Office Action on the merits. Please apply any charges or credits to Deposit Account No. 19-4293.

Respectfully submitted,

Date: 10-21-04

  
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Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14952.0320	Application No. 10/772,424
	Applicant John V. Frangioni et al.		
	Filing Date February 6, 2004	Group Art Unit 3736	

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,262,357	11/16/1993	Alivisatos et al.			
	AB	5,505,928	04/09/1996	Alivisatos et al.			
	AC	5,525,377	06/11/1996	Gallagher et al.			
	AD	5,537,000	07/16/1996	Alivisatos et al.			
	AE	5,585,640	12/17/1996	Huston et al.			
	AF	5,674,698	10/07/1997	Zarling et al.			
	AG	5,677,545	10/14/1997	Shi et al.			
	AH	5,751,018	05/12/1998	Alivisatos et al.			
	AI	5,985,173	11/16/1999	Grey et al.			
	AJ	5,985,353	11/16/1999	Lawton et al.			
	AK	5,990,479	11/23/1999	Weiss et al.			
	AL	6,054,495	4/25/2000	Markowitz et al.			
	AM	6,114,038	9/5/2000	Castro et al.			
	AN	6,139,585	10/31/2000	Li			
	AO	6,207,229	3/27/2001	Bawendi et al.			
	AP	6,251,303	6/26/2001	Bawendi et al.			
	AQ	6,306,610	10/23/2001	Bawendi et al.			
	AR	6,319,426	11/20/2001	Bawendi et al.			
	AS	6,326,144	12/4/2001	Bawendi et al.			
	AT	6,379,635	4/30/2002	O'Brien et al.			
	AU	6,337,117	1/8/2002	Maenosono et al.			
	AV	6,444,143	9/3/2002	Bawendi et al.			
	AW	6,447,698	9/10/2002	Ihara et al.			
	AX	6,501,091	12/31/2002	Bawendi et al.			
	AY	6,548,168	4/15/2003	Mulvaney et al.			
	AZ	6,548,171	4/15/2003	Barbera-Guillem et al.			
	AAA	2002/0066401	6/6/2002	Peng et al.			

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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	2003/0017264	1/23/2003	Treadway et al.			
	ACC	2003/0042850	3/6/2003	Bertram et al.			

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	ADD	WO 98/04740	02/05/1998	PCT				
	AEE	WO 98/33070	07/30/1998	PCT				
	AFF	WO 00/27365	5/18/2000	PCT				
	AGG	WO 00/27436	5/18/2000	PCT				
	AHH	WO 00/28088	5/18/2000	PCT				
	AII	WO 00/28089	5/18/2000	PCT				

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AJJ	Akerman et al., <i>Proc. Natl. Acad. Sci. USA</i> 99:12617-12621 (2002)
	AKK	Alivisatos et al., "Organization of 'nanocrystal molecules' using DNA," <i>Nature</i> , 382:609-611, August 15, 1996
	ALL	Alivisatos et al., "Semiconductor Clusters, Nanocrystals, and Quantum Dots," <i>Science</i> , 271:933-937, 1996
	AMM	Alivisatos, "Perspectives on the Physical Chemistry of Semiconductor Nanocrystals" <i>J. Phys. Chem.</i> 1996(100):13226-13239, 1996
	ANN	Anderson and Parrish, <i>J. Invest. Dermatol.</i> 77:13-19 (1981)
	AOO	Bawendi et al., "Luminescence properties of CdSe quantum crystallites: resonance between interior and surface localized states," <i>J. Chem. Phys.</i> , 96(2):946-954, January 15, 1992
	APP	Becker et al., <i>Nature Biotechnol.</i> 19:327-31 (2001)
	AQQ	Beverloo et al., "Preparation and Microscopic Visualization of Multicolor Luminescent Immunophosphors," <i>Cytometry</i> , 13:561-570, 1992
	ARR	Bruchez et al., "Semiconductor Nanocrystals as Fluorescent Biological Labels," <i>Science</i> , 281:2013-2016, September 25, 1998
	ASS	Bugaj et al., <i>J. Biomed. Opt.</i> 6:122-33 (2001)
	ATT	Cao and Banin, <i>J. Am. Chem. Soc.</i> 122:9692-9702 (2000)
	AUU	Cerussi et al., <i>Acad. Radiol.</i> 8:211-218 (2001)

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Examiner Initial	Desig. ID	Document
	AVV	Chan et al., "Quantum Dot Bioconjugates for Ultrasensitive Nonisotopic Detection," <i>Science</i> , 281:2016-2018, 1998
	AWW	Chan et al., <i>Curr Opin Biotechnol</i> 13:40-46 (2002)
	AXX	Chance, <i>Ann. N.Y. Acad. Sci.</i> 838:29-45 (1998)
	AYY	Chen et al., <i>Mat. Res. Soc. Symp. Proc.</i> 691:359-364 (2002)
	AZZ	Cheong et al., <i>IEEE J. Quantum Electronics</i> 26, 2166-2195 (1990)
	AAAA	Coffer et al., "Characterization of quantum-confined CdS nanocrystallites stabilized by deoxyribonucleic acid (DNA)," <i>Nanotechnology</i> , 3:69-76, 1992
	ABBB	Conway et al., <i>Am. J. Clin. Nutr.</i> 40:1123-1130 (1984)
	ACCC	Correa-Duarte et al., "Stabilization of CdS semiconductor nanoparticles against photodegradation by silica coating procedure," <i>Chem. Phys. Lett.</i> , 286:497-501, April 17, 1998
	ADDD	Dabbousi, et al., "(CdSe)ZnS core-shell quantum dots: synthesis and characterization of a size series of highly luminescent nanocrystallites" <i>J. of Phys. Chem. B</i> 101(46):9463-9475, November 13, 1997
	AEEE	Danek et al., "Synthesis of Luminescent Thin-Film CdSe/ZnSe Quantum Dot Composites Using CdSe Quantum Dots Passivated with an Overlayer of ZnSe" <i>Chem. Mater.</i> 8(1):173-180, 1996
	AFFF	Du et al., <i>Phys. Med. Biol.</i> 46:167-81 (2001)
	AGGG	Dubertret et al., <i>Science</i> 298:1759-1762 (2002)
	AHHH	Fridolin et al., <i>Phys. Med. Biol.</i> 45:3779-3792 (2000)
	AIII	Gan et al., "Enhanced Photoluminescence and Characterization of Mn-Doped ZnS Nanocrystallites Synthesized in Microemulsion" <i>Langmuir</i> 1997(13):6427-6431, 1997
	AJJJ	Gao et al., "Strongly Photoluminescent CdTe Nanocrystals by Proper Surface Modification," <i>J. Phys. Chem.</i> , 102:8360-8363, 1998
	AKKK	Gaponik et al., <i>J. of Phys. Chem. B</i> 106:7177-7185 (2002)
	ALLL	Gardner et al., <i>Lasers Surg. Med.</i> 18:129-138 (1996)
	AMMM	Gerion et al., <i>J. Am. Chem. Soc.</i> 124:7070-7074 (2002)
	ANNN	Goldman, E.R., et al., 2002 <i>J. Am. Chem. Soc.</i> 124, 6378
	AOOO	Goldman et al., <i>Anal. Chem.</i> 74:841-847 (2002)
	APPP	Guzelian et al., <i>Applied Physics Letters</i> 69, 1432-1434 (1996)
	AQQQ	Han M. et al., "Quantum-dot-tagged microbeads for multiplexed optical coding of biomolecules," <i>Nature Biotech.</i> 19:631-635.
	ARRR	Harrison et al., <i>Materials Science &amp; Engineering, B: Solid-State Materials for Advanced Technology</i> B69-70:355-360 (2000)
	ASSS	Hines et al., "Synthesis and Characterization of Strongly Luminescing ZnS-Capped CdSe Nanocrystals" <i>J. Phys. Chem.</i> 100:468-471, January 1996
	ATTT	Jacques, Vol. 1999, Oregon Medical Laser Center News (1999)

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	AUUU	Jaiswal <i>et al.</i> , "Long-term multiple color imaging of live cells using quantum dot bioconjugates," <i>Nature Biotechnol.</i> 21:1, 47-51, January 2003
	AVVV	Jarvis et al., "Solution Synthesis and Photoluminescence Studies of Small Crystallites of Cadmium Telluride," <i>Mat. Res. Soc. Symp. Proc.</i> , 272:229-234, 1992
	AWWW	Kershaw <i>et al.</i> , <i>IEEE Journal of Selected Topics in Quantum Electronics</i> 6, 534-543 (2000)
	AXXX	Klarreich, <i>Nature</i> 413:450-452 (2001)
	AYYY	Kortan et al., "Nucleation and Growth of CdSe on ZnS Quantum Crystallite Seeds, and Vice Versa, In Inverse Micelle Media" <i>J. Am. Chem. Soc.</i> 112:1327-1332, 1990
	AZZZ	Kou, L. <i>et al.</i> , <i>Appl. Opt.</i> 32:3531-3540 (1993)
	AAAAA	Kuenstner <i>et al.</i> , <i>Biospectroscopy</i> 3:225-232 (1997)
	ABBBB	Kuno et al., "The band edge luminescence of surface modified CdSe nanocrystallites: Probing the luminescing state" <i>J. Chem. Phys.</i> 106(23):9869-9882, June 1997
	ACCCC	Lawless et al., "Bifunctional Capping of CdS Nanoparticles and Bridging to TiO <sub>2</sub> " <i>J. Phys. Chem.</i> 99:10329-10335, 1995
	ADDDD	Lee et al., "Surface Derivatization of Nanocrystalline CdSe Semiconductors," <i>Mat. Res. Soc. Symp. Proc.</i> , 452:323-328, 1997
	AEEEE	Lee, J. et al., "Full Color Emission from II-VI Semiconductor Quantum Dot-Polymer Composites," <i>Adv. Mater.</i> 12:1102-1105, 2000.
	AFFFF	Liz-Marzan et al., "Synthesis of Nanosized Gold-Silica Core-Shell Particles" <i>Langmuir</i> 12:4329-4335, 1996
	AGGGG	Ludolph, B., et al., "Novel single molecule precursor routes for the direct synthesis of highly monodispersed quantum dots of cadmium or zinc sulfide or selenide," <i>Chem. Commun.</i> 1998: 1849-1850, 1998.
	AHHHH	Mahtab et al., "Preferential-absorption of a 'kinked' DNA to a newtral curved surface: comparison to and implications for nonspecific DNA-protein interactions," <i>J. Am. Chem. Soc.</i> , 118:7028-7032, July 31, 1996
	AIIII	Mahtab et al., "Protein-sized quantum dot luminescence can distinguish between 'straight', 'bent', and 'kinked' oligonucleotides," <i>J. Am. Chem. Soc.</i> , 117:9099-9100, September 6, 1995
	AJJJJ	Matsumoto et al., "Preparation of Monodisperse CdS Nanocrystals by Size Selective Photocorrosion" <i>J. Phys. Chem.</i> 100(32):13781-13785, 1996
	AKKKK	Mattoussi, H., et al. "Self-assembly of CdSe-ZnS Quantum Dot Bioconjugates Using an Engineered Recombinant Protein," <i>J. Am. Chem. Soc.</i> 122:12142-12150, 2000.
	ALLLL	Mikulec et al., "Fluorescent semiconductor nanocrystallites derivatized with biomolecules" <i>Amer. Chem. Soc. Nat'l Meeting</i> , Boston, MA, August 24, 1998
	AMMMM	Mourant <i>et al.</i> , <i>Appl. Opt.</i> 36:949-957 (1997)
	ANNNN	Murphy et al., "Quantum dots as inorganic DNA-binding proteins," <i>Mat. Res. Soc. Symp.</i> , 452:597-600, 1997
	AOOOO	Murray et al., "Synthesis and Characterization of Nearly Monodisperse CdE (E=S, Se, Te) Semiconductor Nanocrystallites" <i>J. Am. Chem. Soc.</i> 115(19):8706-8715, 1993
	APPPP	Murray <i>et al.</i> , <i>IBM Journal of Research and Development</i> 45:47-56 (2001)

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AQQQQ	Nakayama <i>et al.</i> , "Functional near-infrared fluorescence imaging for cardiac surgery and targeted gene therapy," <i>Molecular Imaging</i> (2002)
	ARRRR	Nirmal et al., "Fluorescence Intermittency in single Cadmium Selenide Nanocrystals" <i>Nature</i> 383:802-804, October 1996
	ASSSS	Pathak S., <i>et al.</i> , 2001 <i>J. Am. Chem. Soc.</i> 123, 4103
	ATTTT	Pehnt et al., "Nanoparticle Precursor Route to Low-Temperature Spray Deposition of CdTe Thin Films," <i>Appl. Phys. Lett.</i> , 67(15):2176-2178, October 9, 1995
	AUUUU	Peng et al., "Epitaxial Growth of Highly Luminescent CdSe/CdS Core/Shell Nanocrystals with Photostability and Electronic Accessibility," <i>J. Am. Chem. Soc.</i> , 119:7019-7029, July 30, 1997
	AVVVV	Peng et al., "Synthesis and Isolation of a Homodimer of Cadmium Selenide Nanocrystals," <i>Angewandte Chemie</i> , 36:145-147, February 3, 1997
	WWWW	Rajh et al., "Synthesis and Characterization of Surface-Modified Colloidal CdTe Quantum Dots" <i>J. Phys. Chem.</i> 97:11999-12003, Nov. 1993
	AXXXX	Rogach et al., "Synthesis and characterization of Thiol-Stabilized CdTe Nanocrystals" <i>Ber. Bunsenges. Phys. Chem.</i> 100(11):1772-2778, 1996
	AYYYY	Rogach <i>et al.</i> , <i>Advanced Materials (Weinheim, Germany)</i> 11:552-555 (1999)
	AZZZZ	Rosenthal <i>et al.</i> , <i>J. Am. Chem. Soc.</i> 124:4586-4594 (2002)
	AAAAA	Spanhel et al., "Photochemistry of Colloidal Semiconductors. Surface Modification and Stability of Strong Luminescing CdS Particles" <i>J. Am. Chem. Soc.</i> 109(19):5649-5655, 1987
	ABBBBB	Steigerwald et al., "Surface Derivatization and Isolation of Semiconductor Cluster Molecules," <i>J. Am. Chem. Soc.</i> , 110:3046-3050, 1988
	ACCCCC	Szekeres <i>et al.</i> , <i>J. Cardiovasc. Pharmacol.</i> 38:584-92 (2001)
	DDDDD	van Staveren <i>et al.</i> , <i>Applied Optics</i> 30:4507-4514 (1991)
	AEEEE	Wan <i>et al.</i> , <i>Photochem. Photobiol.</i> 34:679-681 (1981)
	AFFFFF	Wang, Y.A., et al., 2002 <i>J. Am. Chem. Soc.</i> 124, 2293
	GGGGG	Weissleder <i>et al.</i> , <i>Nature Biotechnol.</i> 17:375-378 (1999)
	HHHHH	Weissleder, <i>Nature Biotechnol.</i> 19:316-7 (2001)
	AIIII	Whitesell, "Directionally Aligned Helical Peptides on Surfaces", <i>Science</i> , 261:73-75, July 2, 1993
	AJJJJ	Wu <i>et al.</i> , "Immunofluorescent labeling of cancer marker Her2 and other cellular targets with semiconductor quantum dots," <i>Nature Biotechnology</i> 21:1, 41-46, January 2003
	KKKKK	Zaheer <i>et al.</i> , <i>Nature Biotechnol.</i> 19:1148-1154 (2001)

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